

CLAIMS

1. An anti-scorch composition for flame-retarded flexible polyurethane foams, comprising at least one antioxidant agent, an epoxy compound, and at least one organic phosphite alone or in combination with at least one metal salt of a monocarboxylic or dicarboxylic acid.
2. A composition according to claim 1, wherein said organic acid is selected from among saturated or unsaturated, aliphatic or aromatic, and monocarboxylic or dicarboxylic organic acids.
3. A composition according to claim 1, wherein the metal in said metal salt is selected from the group consisting of Ca, Zn, Ba, and Sn.
4. A composition according to claim 1, wherein said at least one antioxidant agent is selected from among phenols and amino oxygen scavengers.
5. A composition according to claim 4, wherein the phenol is a hindered phenol.
6. A composition according to claim 4, wherein the amino oxygen scavenger is an alkylated diphenylamine.
7. A composition according to claim 1, wherein said at least one antioxidant agent comprises a mixture of hindered phenol and an alkylated diphenylamine.
8. A composition according to claim 1, wherein said flame-retarded foams are retarded with an aliphatic or aromatic, phosphorus-based, flame retardant (FR).
9. A composition according to claim 1, wherein said flame-retarded foams are retarded with a halogen-containing flame retardant.

10. A composition according to claim 1, wherein said flame-retarded foams are retarded with an aliphatic or aromatic, brominated or chlorinated, FR.
11. A composition according to claim 1, wherein said flame-retarded foams are retarded with a FR selected from the group consisting of tribromoneopentyl alcohol, tris(2-chloroisopropyl) phosphate, tris(dichloropropyl) phosphate, chlorinated alkyl phosphate ester, halogenated aryl esters/aromatic phosphate blend, pentabromobenzyl alkyl ethers, and brominated epoxy.
12. A composition according to claim 1, wherein said epoxy compound is selected from among diglycidyl ether of bisphenol A and its derivatives.
13. A composition according to claim 1, wherein said organic phosphite is selected from among tris(alkylphenyl) phosphites, trialkyl phosphites, dialkyl phenyl phosphites, triphenyl phosphites, and alkyl diphenyl phosphites.
14. A method for preventing or diminishing scorch in a flame-retarded flexible polyurethane foam, comprising adding to the polyurethane composition, prior to foaming, at least one antioxidant agent, an epoxy compound, and organic phosphites alone or in combination with at least one metal salt of a monocarboxylic or dicarboxylic acid.
15. A method according to claim 14, wherein the organic acid is selected from among saturated or unsaturated, aliphatic or aromatic, monocarboxylic or dicarboxylic organic acids.
16. A method according to claim 14, wherein the metal in said metal salt is selected from the group consisting of Ca, Zn, Ba or Sn.
17. A method according to claim 14, wherein said at least one antioxidant agent is selected from among phenols and amino oxygen scavengers.

18. A method according to claim 14, wherein said phenol is a hindered phenol.
19. A method according to claim 14, wherein said amino oxygen scavenger is an alkylated diphenylamine.
20. A method according to claim 14, wherein said at least one antioxidant agent comprises a mixture of hindered phenol and an alkylated diphenylamine.
21. A method according to claim 14, wherein said flame-retarded foam is retarded with an aliphatic or aromatic, phosphorus-based, flame retardant (FR).
22. A method according to claim 14, wherein said flame-retarded foam is retarded with a halogen-containing flame retardant.
23. A method according to claim 14, wherein said flame-retarded foam is retarded with a brominated or chlorinated, aliphatic or aromatic, FR.
24. A method according to claim 14, wherein said flame-retarded foam is retarded with a FR selected from the group consisting of tribromoneopentyl alcohol, tris(2-chloroisopropyl) phosphate, tris(dichloropropyl) phosphate, chlorinated alkylphosphate ester, halogenated aryl esters/aromatic phosphate blend, pentabromobenzyl alkyl ethers, and brominated epoxy.
25. A method according to claim 14, wherein said epoxy compound is selected from among diglycidyl ether of bisphenol A and its derivatives.
26. A method according to claim 14, wherein said organic phosphite is selected from among tris(alkylphenyl) phosphites, trialkyl phosphites, dialkyl phenyl phosphates, triphenyl phosphites, and alkyl diphenyl phosphites.